

Remarks

Upon entry of the foregoing amendment, claims 1, 3-6, 8 and 11-18 are pending in the application, with 1 and 8 being the independent claims. Claims 2 and 10 are sought to be cancelled without prejudice to or disclaimer of the subject matter therein. Claims 7 and 9 were previously canceled. Claims 1, 3-6, 8 and 11-13 are sought to be amended. New claims 14-18 are sought to be added. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Objection to the Claims

The Examiner has objected to claims 8 and 13 for informalities. Applicants have amended claims 8 and 13 above to accommodate such informalities. Accordingly, Applicants respectfully request that the objection to claims 8 and 13 be reconsidered and withdrawn.

Rejections under 35 U.S.C. § 103

The Examiner has rejected claims 1, 3-6, 8 and 11-13 under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent No. 6,870,928 to Conroy et al. ("Conroy") in view of U.S. Patent No. 6,278,695 to Christensen et al. ("Christensen"). The Examiner has further rejected claims 2 and 10 under 35 U.S.C. § 103(a) as being allegedly unpatentable over Conroy in view of Christensen, and in

further view of U.S. Patent No. 6,163,579 to Harrington et al. (“Harrington”). For the reasons set forth below, Applicants respectfully traverse.

The combination of Conroy and Christensen does not teach or suggest each and every feature of claim 1, as amended herein. For example, Conroy and Christensen do not teach or suggest at least a multi-port transformer that includes a line coil, a linedriver coil, and a receive coil, “wherein a turns ratio of said linedriver coil to said line coil is 1:N and a turns ratio of said receive coil to said line coil is M:N.” The Examiner acknowledges, with respect to now canceled claim 2, that Conroy and Christensen do not explicitly teach or suggest this feature of claim 1. *See* Office Action, page 7. However, the Examiner contends that Harrington provides this missing feature. Specifically, the Examiner states:

Harrington et al. teaches a broadband modem transformer hybrid wherein he discloses in Fig. 7, a turns ratio of a linedriver coil to a line coil is 1:N and a turns ratio of a receive coil to said line coil is M:N. Harrington et al. discloses a turns ratio of the linedriver coil to the line coil as 1:N and a turns ratio of the receive coil to said line coil is M:1. Thus if N=1, the receive coil to line ratio is M:N.

See Office Action, pages 7-8. Applicants respectfully disagree.

Harrington discloses, at FIG. 7, a hybrid circuit for coupling a broadband modem to a telephone line. The hybrid circuit of FIG. 7 includes **two separate transformers** that couple the transmitter and receiver of a broadband modem to a plain-old-telephone line, respectively. Specifically, Harrington describes the use of a “first transformer” for the coupling of transmit signals; the first transformer including a primary winding 404 and two secondary windings 412 and 422. *See* Harrington, col. 6, lines 10-30. Harrington further describes the use of a “second transformer” for

the coupling of receive signals; the second transformer including first and second primary windings 426 and 428 and a secondary winding 430. *Id.*

Since Harrington discloses two **separate** and distinct transformers to couple transmit and receive signals to and from the plain-old-telephone line, Harrington cannot possibly teach “wherein a turns ratio of said linedriver coil **to said line coil** is 1:N and a turns ratio of said receive coil **to said line coil** is M:N,” as recited by claim 1 (emphasis added). Claim 1 discloses a **common** line coil that is used to couple **both** transmit and receive signals to and from a telephone line. Harrington does **not** teach or suggest of a **common** line coil used to couple both transmit and receive signals to and from a telephone line (i.e., a multi-port transformer). For this reason alone, Harrington cannot teach or suggest the feature of claim 1 noted above.

Furthermore, Fig. 7 of Harrington illustrates that the turns ratio of the transformer used to couple the transmitter to the plain-old-telephone line has a turns ratio of 1:N and the transformer used to couple the receiver to the plain-old-telephone line has a turns ratio of M:1. The Examiner asserts that “**if N=1**, the receive coil to line ratio is M:N” (emphasis added). *See* Office Action, page 8. Applicants submit that Harrington does **not** explicitly disclose that “the receive coil to line ratio is M:N” and, therefore, the Examiner improperly relies on alleged inherency in supporting this assertion. Applicants respectfully refer the Examiner to Section 2112(IV) of the MPEP, which states, in relevant part:

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish inherency of that result or characteristic. To establish inherency, the extrinsic evidence ‘must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by a persons of ordinary skill. Inherency, however, may not be

established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.’

(emphasis in the original) (citation omitted). As a result, the Examiner’s assertion that “**if** N=1, the receive coil to line ratio is M:N” improperly establishes inherency by an alleged **possibility** (i.e., N=1), which is expressly prohibited by the MPEP as noted above.

For at least the foregoing reasons, Applicants assert that independent claim 1, as amended herein, is patentable over Conroy, Christensen and Harrington alone or in any rational combination. Claims 3-6 and 14-15 are similarly patentable over the combination of Conroy, Christensen and Harrington for at least the same reasons as claim 1, from which they depend, and further in view of their own respective features. Accordingly, Applicants respectfully request that the rejection of claims 1 and 3-6 under 35 U.S.C. § 103(a) be reconsidered and withdrawn. In addition, Applicants respectfully request favorable consideration of newly added claims 14-15.

Independent claim 8, as amended herein, is directed to a broadband modem for coupling a broadband signal to a telephone line that recites the feature “wherein within said hybrid circuit a turns ratio of said linedriver coil to said line coil is 1:N and a turns ratio of said receive coil to said line coil is M:N.” As noted above in regard to claim 1, the combination of Conroy, Christensen and Harrington does not teach or suggest this feature. Therefore, independent claim 8 is patentable over the combination of Conroy, Christensen and Harrington. Dependent claim 11-13 and 16-18 are similarly patentable over the combination of Conroy, Christensen and Harrington for at least the same reasons as claim 8, from which they depend, and

further in view of their own respective features. Accordingly, Applicants respectfully request that the rejection of claims 8 and 11-13 under 35 U.S.C. § 103(a) be reconsidered and withdrawn. In addition, Applicants respectfully request favorable consideration of newly added claims 16-18.

Claims 2 and 10 have been canceled by the above amendment, thereby rendering the rejection of these claims moot. Accordingly, Applicants respectfully request that the rejection of claims 2 and 10 under 35 U.S.C. § 103(a) be withdrawn.

Interview Summary

Applicants express their appreciation to the Examiner for conducting a telephonic interview on October 23, 2007 with Michael Specht, counsel for the Applicants. Applicants concur with the interview summary provided by the Examiner on November 11, 2007. As indicated in the Interview Summary, the substance of the interview was administrative in that the Examiner agreed to issue a new Non-Final Office Action.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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